

ABSTRACT

Conventional batteries are disadvantageous in that a firm outer case must be used to maintain an electrical connection between electrodes, which has been an obstacle to size reduction. Those in which each electrode and a separator are joined with an adhesive resin suffer from conflict between adhesive strength and battery characteristics. To solve these problems, it is an object of the invention to provide a battery which requires no outer case so as to realize reduction in thickness and weight and yet exhibits excellence in both battery characteristics and adhesive strength.

A positive electrode, a negative electrode, and a separator are joined via an adhesive resin layer having at least one adhesive resin layer containing a filler. The adhesive resin layer has pores, which are filled with an electrolytic solution to exhibit sufficient ion conductivity thereby to improve battery characteristics and to retain adhesive strength.